

AMENDMENTS TO THE FIGURES:

Please replace Figure 4 with the amended version of Figure 4 as set forth on the attached "Replacement Sheet." As can be seen in the attached "Annotated Marked-up Drawing," the amendment to Figure 4 corrects the second instance of reference character "400" to read "404," and the arrow connecting adjust performance parameter step 408 and the report task type, total resource amount, and current resource load to resource table 412 to be uni-directional. The change to the reference character corrects a clerical error, and is in accordance with the description in the specification. That the corrected arrow should be a uni-directional arrow instead of the previously presented bi-directional arrow is clear from the associated textual description in the specification.

REMARKS/ARGUMENTS

Applicant submits this Amendment and Response to address the Office Action having a mailing date of February 24, 2005. In the Amendments set forth above, Claims 1, 2, 15, 16 and 22 have been amended, without intending to abandon or to dedicate to the public any patentable subject matter. Accordingly, Claims 1-29 are now pending. As set forth herein, reconsideration and withdrawal of the rejections of the claims are respectfully requested.

As shown in the attached "Annotated Marked-up Drawing," Figure 4 has been amended to correct the second instance of reference character "400" to read "404" and to include a single headed arrow, rather than a double headed arrow, between boxes 408 and 412. A replacement sheet incorporating these changes is also attached. This change to Figure 4 is made to correct obvious clerical errors and does not introduce new matter. Accordingly, entry of the replacement sheet containing corrected Figure 4 is respectfully requested.

The Examiner rejects claims 1-14 and 16-18 under 35 U.S.C. 112, second paragraph, as being indefinite. In the amendments set forth above, Claims 1 and 16 have been amended to delete the aspects of those claims found to be indefinite. In view of the amendments to Claims 1 and 16, it is submitted that the rejections under 35 U.S.C. 112 of Claims 1-14 and 16-18 should be reconsidered and withdrawn.

The Examiner rejects Claims 1-12, 14-27, and 29 under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,104,721 to Hsu, and rejects Claims 13 and 28 under 35 U.S.C. 103(a) as being unpatentable over Hsu in view of U.S. 6,484,265 to Borkar et al. For a rejection under 35 U.S.C. §103 to be proper, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be some reasonable expectation of success, and the prior art reference or references must teach or suggest all of the claim limitations. (MPEP §2143.) However, neither Hsu nor Borkar teach, suggest or describe each and every element of the claims. Therefore, reconsideration and withdrawal of the rejections of Claims 1-29 are respectfully requested.

Hsu, the primary reference, is directed to a dynamic resource allocation multiprocessor communications board. This board has several processors that can be coupled to one another

in series. When a task needs to be processed, the controller determines if a single processor has the capability to perform the task. If the controller determines the single processor does have the required capabilities, the task is assigned to the processor. If the task requires more processing power than a single processor has, the controller selects at least two of the processors and forms a pipeline processing combination by enabling at least one of the serial ports to couple the at least two selected processors in series. (Hsu col. 3, lines 41-52.) Hsu therefore meets the processing demands of a given task that the processing power a single processor is unable to meet by linking at least two of the processors in the processing bank to form a pipeline processing combination. (Hsu, col. 3, lines 45-51.)

However, Hsu does not teach, suggest or describe assigning a task to a single processor based on the resource requirement of the tasks and the maximum resource load of the selected platform as recited by Claim 1. Instead, according to Hsu, if a first (single) processor is inadequate to process a certain task, additional processors may be used in conjunction with the first processor. Dynamic allocation according to Hsu is therefore based on combining a number of similar processors in a given processing bank. Furthermore, Hsu states that each of the processors in a given processing bank have an equal chance of being selected to perform a given task. (Hsu col. 6, lines 32-35.) Accordingly, Hsu does not differentiate between processor capabilities. Additionally, Hsu does not teach, suggest or describe selecting a single processor or computer resource from a number of candidate processors or computer resources based on or with reference to a current load on the processor or computer resource.

Claim 1 is generally directed to a method for dynamically allocating tasks in a computer system. As amended, Claim 1 recites, in part, "assigning a maximum computer resource load to each of a plurality of computer platforms, wherein a first of said computer platforms has a first maximum computer resource load and a second of said computer platforms has a second maximum resource load." In addition, Claim 1 recites "assigning said task to a selected one of said plurality of computer platforms." According to Claim 1, "said task is assigned to said selected computer platform based on said resource requirement of said task and said maximum resource load of said selected platform." Claim 1 further recites "performing said task in

connection with said selected computer platform." Claim 1 is not obvious over Hsu for at least the reason that Hsu does not describe assigning a task to a selected one of the computer platforms based on the resource requirement of the task and the maximum resource load of the selected platform. Instead, Hsu assigns a task to a number of processors if one processor is unable to process a task. Therefore, the rejections of Claims 1-12 and 14 as obvious over Hsu should be reconsidered and withdrawn.

Claim 15 is generally directed to a method for dynamically allocating computer processor tasks. Claim 15 recites, in part, "dynamically specifying a first capability of a first computer processor; [and] dynamically specifying a first capability of a second computer processor." Claim 15 also recites "determining that said processor load value of said first task is greater than said first capability of said second computer processor." Claim 15 further recites "assigning said first task to said first computer processor, wherein said first processor load value is less than said first capability of said first computer processor." Claim 15 is not obvious over Hsu for at least the reason that Hsu does not discuss assigning a task to one of a number of computer platforms based on an ability of a single computer platform to perform that task. Instead, Hsu discusses using multiple processors in combination if it is determined that a single processor is unable to perform the task. Accordingly, for at least this reason, the rejections of Claim 15 and dependent Claims 16-21 should be reconsidered and withdrawn.

Claim 22 is generally directed to a computer resource allocation system. As amended, Claim 22 recites, in part, "at least a first computer platform comprising at least a first computer resource and a second computer platform comprising at least a second computer resource, wherein said at least a first computer platform has a first task type capability and a first resource amount capability." Claim 22 further recites that "said second computer platform has a second task type capability and a second resource amount capability, wherein said first and second task type capabilities do not have to be the same, and wherein said first and second resource amount capabilities do not have to be the same." In addition, Claim 22 recites "a software task allocation unit, wherein a task is allocated to a selected one of said first and second computer platforms based on said task type capability and said resource amount capability, and wherein a task is

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completed in connection with said selected one of said first and second computer platforms having a task type capability required to complete said task and a resource amount capability sufficient to complete said task." Claim 22 is not obvious over Hsu for at least the reason that Hsu does not describe a system in which one computer platform is assigned to a task based on a task type capability and a resource amount capability. Accordingly, Claims 22-27 and 29 are not obvious over Hsu, and the rejections of those claims should be reconsidered and withdrawn.

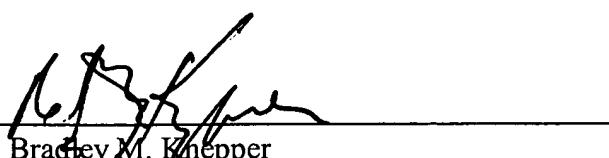
Claims 13 and 28 depend from Claims 1 and 24 respectively. In general, Claims 13 and 28 are related to sensing a temperature and altering a load value or maximum resource amount capability of a computer platform or resource in response to a detected change in temperature. The Borkar reference, which is directed to control software that monitors and controls chip parameters, including performance, power consumption and temperature, is cited by the Office Action for disclosing the elements recited by Claims 13 and 28. However, even if Borkar is considered to disclose such aspects of the claimed invention, and even if Borkar is appropriately combined with the Hsu reference, each and every element of the independent claims would not be present in such a combination, as discussed above. Accordingly, Claims 13 and 28 are not obvious over Hsu in view of Borkar, and the rejections of these claims should be reconsidered and withdrawn.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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Annotated Marked-Up Drawing

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FIG. 4

